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DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

Docket No. NHTSA-2012-0039

RIN 2127-AJ93

Federal Motor Vehicle Safety Standards; Platform Lifts for Motor Vehicles; Platform Lift Installations in Motor Vehicles

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: This document adopts amendments to the Federal motor vehicle safety standards on platform lift systems for motor vehicles. The purpose of these standards is to prevent injuries and fatalities during lift operation. NHTSA believes it is necessary to revise the lighting requirements for lift controls; the location requirements, performance requirements, and test specifications for threshold warning signals; the wheelchair retention device and inner roll stop tests; and the lighting requirements for public use lifts. This notice also discusses a November 3, 2005 interpretation clarifying specific procedures that are performed as part of the threshold warning signal test.

DATES: *Effective date:* This final rule is effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Compliance date: Mandatory compliance with this final rule is required beginning [INSERT DATE 180 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Optional compliance is permitted beginning [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Petitions for reconsideration: If you wish to petition for reconsideration of this rule, your petition must be received by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: If you submit a petition for reconsideration of this rule, you should refer in your petition to the docket number of this document and submit your petition to: Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, S.E., West Building, Washington, D.C. 20590.

The petition will be placed in the public docket. Anyone is able to search the electronic form of all documents received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477-78).

FOR FURTHER INFORMATION CONTACT: For technical issues, you may contact Mike Pyne, NVS-123, Office of Rulemaking, by telephone at (202) 366-2720, by fax at (202) 366-2739, or by email to mike.pyne@dot.gov. For legal issues, you may contact David Jasinski, Office of the Chief Counsel, NCC-112, by telephone at (202) 366-2992, by fax at (202) 366-3820, or by email to david.jasinski@dot.gov. You may send mail to both of these officials at National Highway Traffic Safety Administration, 1200 New Jersey Avenue S.E., Washington, D.C. 20590.

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I. Background

On December 27, 2002, the agency published in the **Federal Register** a final rule establishing FMVSS No. 403, *Platform lift systems for motor vehicles*, and FMVSS No. 404, *Platform lift installations in motor vehicles*.¹ We established these two standards to provide practicable, performance-based requirements and compliance procedures for the regulations promulgated by DOT under the Americans with Disabilities Act (ADA),² and to ensure the safety of vehicles equipped with those lift systems. FMVSS Nos. 403 and 404 provide that only lift systems that comply with objective safety requirements may be sold and installed on new motor vehicles, and that vehicles with lift systems must comply with objective safety requirements in order to be sold.

FMVSS No. 403 establishes requirements for platform lifts that are designed to carry passengers with limited mobility, including those who rely on wheelchairs, scooters, canes and other mobility aids, so that they can move into and out of motor vehicles. The standard requires

¹ 67 FR 79416.

² Pub. L. No. 101-336, 42 U.S.C. 12101, *et seq.* The ADA directed the DOT to issue regulations to implement the transportation vehicle provisions that pertain to vehicles used by the public. Titles II and III of the ADA set specific requirements for vehicles purchased by municipalities for use in fixed route bus systems and vehicles purchased by private entities for use in public transportation to provide a level of accessibility and usability for individuals with disabilities. 42 U.S.C. 12204.

that these lifts meet minimum platform dimensions and maximum size limits for platform protrusions and gaps between the platform and either the vehicle floor or the ground. The standard also requires handrails, a threshold warning signal, and retaining barriers and specifies performance tests.

FMVSS No. 404 establishes requirements for vehicles that, as manufactured, are equipped with platform lifts. The lifts installed on those vehicles must be certified as meeting FMVSS No. 403, must be installed according to the lift manufacturer's instructions, and must continue to meet all of the applicable requirements of FMVSS No. 403 after installation. The standard also requires that specific information be made available to lift users.

Recognizing that the usage patterns of platform lifts used in public transit differ from those of platform lifts for individual (i.e., private) use, the agency established separate requirements for public use lifts and private use lifts. FMVSS No. 404, S4.1.1 requires that the lift on each lift-equipped bus, school bus and multipurpose passenger vehicle other than a motor home with a gross vehicle weight rating (GVWR) more than 4,536 kg (10,000 lb) must be certified as meeting all applicable public use lift requirements set forth in FMVSS No. 403. FMVSS No. 404, S4.1.2 requires the lift on each lift-equipped vehicle with a GVWR of 4,536 kg (10,000 lb) or less to be certified to either the public use or private use lift requirements set forth in FMVSS No. 403. Different requirements apply to vehicles with public use lifts than to vehicles with private use lifts because public use lifts generally are subject to more stress and cyclic loading and will be used by more numerous and varied populations.

As required by the ADA, FMVSS Nos. 403 and 404 are consistent with the Architectural and Transportation Barriers Compliance Board (ATBCB) guidelines published on September 6,

1991.³ In order to provide manufacturers sufficient time to meet any new requirements established in FMVSS Nos. 403 and 404, the agency provided a two-year lead-time, which scheduled the standards to become effective on December 27, 2004.

On October 1, 2004, in response to petitions for reconsideration of its December 27, 2002 final rule, the agency published a final rule in the **Federal Register** revising FMVSS Nos. 403 and 404. Among the changes made by the October 1, 2004 final rule, the agency amended edge guard requirements and the wheelchair test device specifications.⁴

On December 23, 2004, the agency published an interim final rule in the **Federal Register** delaying the compliance date until April 1, 2005 for FMVSS No. 403 and July 1, 2005 for FMVSS No. 404.⁵ On July 15, 2005, the agency published in the **Federal Register** its disposition of petitions for reconsideration of its October 1, 2004 final rule and other submissions regarding that final rule.⁶ The July 15, 2005 document did not address submissions received from the Blue Bird Body Company (Blue Bird), the School Bus Manufacturers Technical Council (SBMTC), which represents school bus manufacturers (including Blue Bird), and the Manufacturers Council of Small School Buses (MCSSB), an affiliate of the National Truck Equipment Association formed to represent the interest of small manufacturers. The submissions, which were styled as petitions for reconsideration, requested changes in the required level of lighting on public use lift platforms. Since the agency did not address that issue of lighting levels in the October 2004 final rule, there was no agency action regarding lighting to be reconsidered. The agency stated in the notice that it would treat the submissions as petitions for rulemaking and respond in a separate notice.

³ 56 FR 45530.

⁴ 69 FR 58843.

⁵ 69 FR 76865.

⁶ 70 FR 40917.

NHTSA received three additional petitions for rulemaking after July 15, 2005, seeking revisions to FMVSS Nos. 403 and 404. Specifically, we received petitions from Maxon Lift Corporation (Maxon), Ricon Corporation (Ricon) and the Lift-U Division of Hogan Manufacturing, Inc. (Lift-U), all of which are platform lift manufacturers. The petitioners requested that the agency amend: (A) the control panel switch requirements in S6.7.6.2 of FMVSS No. 403 so that lift controls in locations remote from the driver's seating position are not subject to the illumination requirements in S5.3 of FMVSS No. 101; (B) the threshold warning signal requirements in S6.1.4 of FMVSS No. 403 to permit warning lights to be mounted in a location clearly visible in reference to the lift; (C) the threshold warning signal requirements in S6.1.4 and S6.1.6 of FMVSS No. 403 to clarify the units of measurement and minimum required luminance at the designated measurement point; (D) the threshold warning test in S7.4 of FMVSS No. 403 to include a performance test for warning systems using infrared and other sensor technologies; (E) the wheelchair test device specification in S7.1.2 of FMVSS No. 403 to include anti-tip devices; (F) the wheelchair retention device impact test specifications in S7.7 of FMVSS No. 403 to permit use of a loaded wheelchair test device; and (G) the requirements for platform lighting on public use lifts in S4.1.5 of FMVSS No. 404 to reduce the required illumination levels to those specified by the ADA and the Federal Transit Administration (FTA).

II. Summary of the NPRM

In a notice of proposed rulemaking (NPRM) published on December 20, 2007,⁷ NHTSA proposed to amend the text of FMVSS Nos. 403 and 404. That NPRM addressed the six pending petitions for rulemaking. The NPRM also proposed additional changes to FMVSS Nos. 403 and 404 based upon NHTSA's experience during compliance testing.

⁷ 72 FR 72326 (Docket No. NHTSA-2007-0052).

First, in response to the petition from Maxon, NHTSA proposed an amendment to make it clear that the illumination requirements of FMVSS No. 101 do not apply to controls that are located outside the vicinity of the driver. Under the proposed amendments, controls within the vicinity of the driver, as defined in S5.3.4(a) of FMVSS No. 101, would be required to comply with the FMVSS No. 101 illumination requirements. The purpose of the FMVSS No. 101 requirement is to prevent illuminated controls from distracting a driver who has adapted to dark ambient roadway conditions. That concern is not present for controls outside the vicinity of the driver. The proposed amendment also specified that lift controls outside the vicinity of the driver have a means for illuminating characters to make them visible under both daylight and nighttime conditions.

In response to the petition from Maxon, NHTSA proposed an amendment to the threshold warning signal location in S6.1.4 of FMVSS No. 403. The present language requires that the visual warning signal be installed such that it does not require more than a ± 15 degree side-to-side head rotation as viewed by a passenger in a wheelchair backing onto the platform from the interior of the vehicle. The agency acknowledged that the requirement created ambiguity because it did not specify whether the measurement was a line-of-sight measurement or whether peripheral vision may be used. Consequently, NHTSA proposed defining the requirement so that visual warning must be visible from a point 914 mm (3 ft) above the center of the threshold warning area.

In response to the petition from Ricon, NHTSA proposed an amendment to clarify the units of measurement and minimum required luminance of the visible threshold warning signal. The visual warning is required to be a flashing red beacon with a minimum intensity of 20 candela, and the intensity measurement is taken away from the source. Ricon stated that it had

confirmed that “candela” is a measurement of output at the source, and, to measure luminous intensity at a specified distance from a source, the measurement should be specified in “lux” or “foot-candles.” In response, NHTSA proposed removing the requirement that the visible intensity be measured away from the source and replaced it with a more general visibility requirement.

In response to the petition from Lift-U, NHTSA proposed revising S7.4 to include a performance test for threshold warning systems using infrared and other technologies. Lift-U acknowledged that the current test is effective for testing technologies that sense weight. However, Lift-U stated that the substantive requirement in S6.1 does not specify the use of a warning device that senses weight. NHTSA proposed amending S7.4 to include the option of performing the current threshold warning test with an occupant in the wheelchair test device.

In response to the petition from Ricon, NHTSA proposed amending the wheelchair retention impact test specifications in S7.7 to permit the addition of a 50 kg (110 pound) weight to the wheelchair test device during the test. Ricon contended, and NHTSA’s test data confirmed, that the center of gravity of an unloaded wheelchair changes significantly upon impact with an outer barrier. That change, when combined with continued forward motion of the drive wheels, caused the test device to flip backwards, resulting in failure of the test. NHTSA proposed allowing the addition of the weight because this failure is due to the test procedure rather than any inadequacy in the wheelchair retention device.

The petition from Ricon and the recent testing also caused NHTSA to propose amending the wheelchair retention test specifications in S7.7 and the inner roll stop test specifications in S7.8 to provide for the turning off the wheelchair drive motor after the initial impact by the test device. The agency stated that it could be difficult to design wheelchair retention devices and

inner roll stops that protect wheelchair passengers from all possible situations without interfering with the normal operation of the lift. The agency also stated its belief that it was sufficient to ensure that the strength and configuration of wheelchair retention devices and inner roll stops are designed so that wheelchairs will not plow through or roll over them. In a typical real world situation, persons occupying wheelchairs would not be operating them at high rates of speed on the platform, and would turn off the drive power upon impact with a barrier. The agency proposed amendments to the test specifications in S7.7 and S7.8 because maintaining power after the initial impact may result in testing inconsistencies due to differences in the drive wheel torque and stall rates of some test devices. Turning off the power would also stabilize the wheelchair test device after impact and prevent damage to the wheelchair test device and the lift.

As a consequence of this amendment, NHTSA also proposed amending S6.4.7 to eliminate the requirement that the wheelchair test device remain upright with all of its wheels in contact with the platform surface following impact. Instead, NHTSA proposed to revise S6.4.7 to provide that a wheelchair retention device passes the impact test if, after impact, the wheelchair test device remains supported by the platform surface with none of the axles of its wheels extending beyond the plane that is perpendicular to the platform reference plane (Figure 1) which passes through the edge of the platform surface that is traversed when entering or exiting the platform from the ground level loading position. The proposed test criteria references axles rather than wheels to prevent the occurrence of another type of test failure during rearward testing, i.e., one in which the large wheels of the wheelchair test device may rest on the platform and touch the outer barrier with the tires extending beyond the plane after impact. A similar amendment was proposed to the inner roll stop test.

In response to petitions from Blue Bird, the SBMTC, and the MCSSB, the agency proposed reducing the platform illumination requirements for public lifts in S4.1.5 of FMVSS No. 404. NHTSA proposed reducing the illumination requirements to those specified by the ADA and the FTA. NHTSA intended that its current requirements not produce an additional burden on public use manufacturers. However, NHTSA was convinced by the petitioners' arguments that the agency was placing additional burdens on manufacturers by requiring that they comply with both the ADA requirements and the more rigorous requirements in FMVSS No. 404. Furthermore, NHTSA noted the intervening enactment of the National Technology Transfer and Advancement Act,⁸ which requires Federal agencies to use available technical standards that are developed or adopted by a voluntary consensus standards body, in lieu of government-unique standards, except where use of those voluntary consensus standards is inconsistent with law or otherwise impractical.

NHTSA also proposed four technical changes. First, NHTSA proposed amending S7 of FMVSS No. 403 to require the performance of the handrail test in S7.12 on a lift/vehicle combination rather than on a test jig. The handrail requirements in S6.4.9.8 require 38 mm (1.5 in) of clearance between each handrail and any portion of the vehicle, throughout the range of passenger operation. It is not possible to determine that clearance if the test is conducted on a jig.

NHTSA also proposed a correction to Figure 2 of FMVSS No. 403. Currently, the height of the measurement point from which the intensity of the threshold audible warning is measured is identified as 919 mm. The proposed amendment would replace that distance with the correct measurement point of 914 mm (3 feet).

⁸ Pub. L. No. 104-113

NHTSA also proposed an amendment to clarify the control panel switch requirements of S6.7.4. Currently, there is an ambiguity regarding what must happen when two or more switches are actuated simultaneously. The proposed amendment would require that, if one or more functions are actuated while an initial function is actuated, the platform must either continue in the direction dictated by the original function or stop.

NHTSA proposed amending the interlock requirements and test procedures in S6.10.2.4, S6.10.2.5, S6.10.2.6, S6.10.2.7, S7.5, and S7.6 of FMVSS No. 403. The purpose of the proposed amendments was to eliminate confusion, discovered as a result of compliance testing and communications from a lift manufacturer. The proposed amendments would revise and renumber S7.5.2 and S7.5.3 to make clear that those provisions constitute a single test procedure that is applicable to both the requirements of S6.10.2.5 and S6.10.2.6. The proposed amendments would also change the test procedure set forth in those provisions to ensure that an outer barrier is fully deployed by the time the platform is 75 mm (3 in) above the ground. NHTSA also proposed a similar amendment to the inner roll stop test procedure set forth in S7.6.2 and S7.6.3.

Finally, NHTSA included discussion of a November 3, 2005 interpretation. That interpretation is repeated in Section V below to ensure wide-spread dissemination.

III. Comments and Analysis

NHTSA received five comments in response to the NPRM from the following parties: Maxon Lift Corporation (Maxon); the American Association of Justice (AAJ); the National Truck Equipment Association (NTEA);⁹ Blue Bird Body Company (Blue Bird); and Lift-U Division of Hogan Manufacturing, Inc. (Lift-U). Maxon addressed the handrail test procedure

⁹ NTEA's comments were on behalf of two of its affiliate divisions –the MCSSB and the Mid-Size Bus Manufacturers Association (MSBMA).

and the outer barrier interlock test procedure. The AAJ's comment solely addressed the issue of preemption of State tort law. The NTEA and Blue Bird addressed the platform illumination test procedure. Lift-U's comment addressed the barrier impact test. We address these comments in detail below.

We received no comments on several topics for which amendments were proposed in the December 2007 NPRM. We received no comments on the following proposed amendments: Limiting the FMVSS No. 101 control illumination requirement to lift controls located near the driver; modifying location and intensity requirements for the threshold warning beacon; including the option of using a 5th percentile female for the threshold warning test procedure to allow for the possibility of lift systems using infrared sensors; and continuing to exclude the anti-tip devices from the specification for the standard test wheelchair specified in paragraph S7.1.2 of FMVSS No. 403. Except as discussed below, we have included the proposed amendments in the regulatory text without further discussion for the reasons set forth in the December 2007 NPRM.

A. Use of Auxiliary Retention Devices for Interlock Procedure

Maxon commented on the proposed technical change that would amend the test procedure for outer barrier interlock testing. In the December 2007 NPRM, NHTSA proposed revising the test procedure to ensure that the outer barrier be fully deployed by the time the platform is 75 mm (3 in) off the ground. The proposed language would provide for the platform to be moved up until the platform is 75 mm (3 in) above the ground. Thereafter, the front wheel of the wheelchair test device is placed on the edge of the outer barrier and the platform is moved up until it stops. If the interlocks are working correctly, the wheel of the wheelchair test device will prevent the outer barrier from deploying, the wheelchair test device wheel will not move

vertically upward more than 13 mm (0.5 in), and the platform will stop automatically before the upper surface is greater than 75 mm (3 in) above the ground.

Maxon expressed concern involving the potential use of auxiliary wheelchair retention devices such as belts. Maxon states that these devices are designed to disable lift operation when they are unfastened. Accordingly, Maxon contends, it would be necessary to fasten such devices prior to conducting the outer barrier interlock test in S7.5. Maxon requested clarification as to whether belt-type retention devices can and should be fastened prior to testing.

Agency's Response: We are clarifying the proposed language as a result of Maxon's comment. We recognize that auxiliary retention devices such as a belt can disable lift operation when they are not fastened, and we agree with Maxon that the failure to fasten such a belt would render the test moot. To remedy the ambiguity, we are adding language to S7.5.1.1, as proposed, to clarify that other retention devices are configured so that they do not prevent lift operation.

B. Barrier Impact Test

Lift-U commented on proposed changes to the barrier impact test. In the December 2007 NPRM, the agency proposed several changes to the barrier impact test, including a change to the test procedure so that the wheelchair test device's power is cut off after initial impact with the barrier. The agency stated that turning off power during the wheelchair retention and inner roll stop impact tests would stabilize the wheelchair test device after impact and thereby help prevent technical failures and related damage to the wheelchair test device or the lift.

Lift-U contended in its comment that the power to the drive wheels should be maintained after impact to test the effectiveness of the wheelchair retention device. Lift-U stated that the wheelchair retention device is, arguably, the most important safety device on the lift platform system because it is the only means of preventing a wheelchair and passenger from rolling off

the edge of the platform. Lift-U stated that an effective test method must demonstrate that the retention device cannot be defeated.

Lift-U also disagreed with some of the agency's assertions in the December 2007 NPRM in support of the proposed change. NHTSA stated that, in typical real world situations, occupied wheelchairs will not be moving at high rates of speed on the platform. Lift-U contended that the agency's reasoning is flawed because the test itself is an implicit acknowledgement that it is possible for occupants to lose control of their mobility device on a platform. Lift-U further stated that the agency's assumption that occupants would terminate drive power upon impact with a barrier assumes that the occupant is able to do so.

Lift-U stated that the proposed test procedure must be evaluated against the stated test objective. In its comment, Lift-U noted the agency's two objectives – preventing the test device from plowing through or rolling over the top of the barrier.

Lift-U questioned what is meant by the term “initial impact.” Lift-U stated that, if it is defined as “initial contact,” then the release of power to the wheelchair test device would subject the barrier to an inconsequential impact. Lift-U also stated that the moment of “initial impact” could be the moment the barrier reaches its maximum deflection due to the impact, thereby demonstrating that the barrier is sufficient to absorb the impact.

However, even if this more rigorous interpretation is intended, Lift-U contended that this part of the test cannot demonstrate whether the barrier is effective at preventing a wheelchair from rolling over the top. Lift-U stated that height and rigidity are the two aspects of barrier design that would determine its effectiveness, and that even a tall barrier would be susceptible to a wheelchair rolling over it if the barrier is not sufficiently rigid, while a rigid barrier could be defeated if its height were insufficient to prevent being over-topped by a wheelchair. In either

case, Lift-U contends that the adequacy of the barrier can be determined only when the wheelchair has had the opportunity to climb over it after the initial impact.

Lift-U questioned the agency's assertion that continued application of wheelchair drive power leads to technical failures that are unrelated to the barrier's safety. Lift-U also questioned the agency's statement that it could be difficult to design retention devices and inner roll stops that protect wheelchair passengers in all situations without interfering with normal lift operation. Lift-U concluded that the present regulatory language provides a means to test all aspects of a barrier's design and thereby demonstrates its adequacy.

Finally, Lift-U supported other proposed changes to the barrier impact test. Specifically, Lift-U supported the option of adding a weight to the wheelchair test device and the change in the compliance criteria.

Agency's Response: NHTSA is not making any substantive changes to the proposal based upon Lift-U's comment. However, we are clarifying the regulatory text to ensure that the term "initial impact" is not misunderstood. We recognize the merit in Lift-U's argument in favor of retaining the present test, in which the power to the wheelchair test device is not turned off until all wheelchair motion stops (except for the drive wheels). Nevertheless, we believe that a test in which the power to the wheelchair test device is turned off after initial impact is more practicable while also meeting the safety purpose of the standard.

Our experience to date with the present test procedure has demonstrated that the behavior of the wheelchair test device is often unstable and erratic if drive power continues to be applied after impact. We have observed that the wheelchair test device can bounce violently on the platform, repeatedly ram into the barriers and other components of the lift, flip over backwards or sideways, or fall off the platform completely. Some of this behavior may reflect possible

outcomes of actual lift use, as Lift-U has stated (e.g., a malfunctioning wheelchair). However, the test is so inconsistent as to be impracticable for compliance testing. Furthermore, the test is often damaging to the wheelchair test device.

Regarding the meaning of the term “initial impact,” we agree with Lift-U that turning off drive power immediately at the moment of initial contact with the barrier would be an insufficient test of the barrier’s integrity. Allowing the entire impact to be sustained by the barrier before turning off drive power to the wheelchair test device (that is, releasing the joystick controller) involves a more substantial infliction of force against that barrier. When the wheelchair test device strikes the barrier, slack and elasticity allow the wheelchair test device to deflect the barrier until the striking force is counteracted. The barrier will deflect and bend before developing enough force to stop and begin to reverse the wheelchair test device’s motion.

We believe “initial impact” includes all of the transfer of energy from the wheelchair test device to the barrier that takes place during this process. Our intention is that power to the wheelchair test device should be released only after the full impact cycle described above is completed. The proposed change merely eliminates additional impacts which may occur as a result of the wheelchair test device bouncing repeatedly off the barrier. We believe those subsequent impacts are unnecessary and that withstanding the first full impact is both a rigorous demonstration of barrier integrity and an adequate test of compliance with the requirement. To clarify our intent, we are changing the text of S7.7.2.4 to make clear that the complete initial impact of the wheelchair test device is absorbed by the barrier. Because identical language is also used in the procedure for the inner barrier impact test, we are making an identical change to S7.8.3. Otherwise, we are proceeding with the change in the barrier impact test procedure as proposed in the December 2007 NPRM.

C. Handrail Test Procedures

Among the technical changes proposed in the December 2007 NPRM were amendments to the handrail test procedures in FMVSS No. 403. S6.4.9 details the handrail requirements for public and private use lifts. S6.4.9.8 of that standard provides that, when tested in accordance with S7.12.1, there must be at least 38 mm (1.5 in) of clearance between each handrail and any portion of the vehicle, throughout the range of passenger operation. In order to measure this clearance, the lift must be mounted on a vehicle during the test. The proposed amendments would require the handrail test in S7.12 to be performed on a lift/vehicle combination rather than on a test jig.

Maxon commented that NHTSA should not make the proposed change for three reasons. First, Maxon noted that measurement of handrail displacement on a lift mounted on a test fixture is already difficult and it would be made more difficult by mounting the lift on a vehicle. Maxon stated that the added movement could make the accuracy of the measurement questionable. Second, Maxon observed that S7.12.1 does not require measurement throughout the range of passenger operation, which does not ensure that clearance is maintained at all lift positions. Third, Maxon noted that S7.12.1 and S7.12.2 do not specify a direction for the applied test load. As a consequence, Maxon contends, a manufacturer could test only in the most favorable direction and test only one vehicle. Maxon concluded that the proposed change would increase the testing burden without providing any increase in safety to passengers because the test would not ensure that lifts have adequate handrail clearance in all applications.

Agency's Response: We have not made any changes to the proposed handrail test procedures based on Maxon's comments. It appears from Maxon's comments that the commenter has misinterpreted the handrail test requirement and the general applicability of

FMVSS No. 403. Regarding the use of an actual vehicle rather than a test fixture, we believe that the purpose of the test is to reflect real world use and clearances. Although some FMVSS No. 403 test procedures can be performed on a test fixture without any compromise in the validity of the test or its applicability to actual use of the lift, in many cases a handrail test performed on a test fixture would not simulate actual handrail clearance and could fail to ensure the safety of lift users under actual operating conditions.

Regarding measurement accuracy, we note that Maxon did not provide any information to substantiate their assertion that handrail tests conducted on a lift/vehicle combination are inadequate compared to tests conducted on a test fixture. Thus, we do not have any basis for determining that handrail displacement tests on a lift/vehicle combination are impractical.

Maxon's other concerns are based on a misunderstanding of how NHTSA conducts compliance testing. Although Maxon states that measurement of handrail displacement is required only in one lift position, we observe that S6.4.9.8 states that the required handrail clearance must be maintained throughout the range of passenger operation. Maxon's statement that a lift manufacturer could test handrail deflection only in a single direction is similarly incorrect. Paragraphs S6.4.9.7 and S6.4.9.9 both state that the required force is applied at any point and in any direction on the handrail. NHTSA's regulations state, at 49 CFR 571.4, that the term "any" indicates that a requirement must be met at all points within a range of possible points. In this case, the use of the word "any" in S6.4.9.7 and S6.4.9.9 means that a handrail can be tested and must comply with the standard in every possible direction in which it deflects when subjected to the specified force.

D. Measurement Procedure for Platform Illumination

Both Blue Bird and the NTEA submitted comments related to the proposed test procedure for platform illumination in FMVSS No. 404. The platform illumination requirement applies to public-use lifts and is intended to facilitate lift use in darkness. S4.1.5 currently requires that public use lifts have a light or set of lights that provides at least 54 lm/m^2 (5 lm/ft^2) of luminance on all portions of the surface of the platform, throughout the range of passenger operation.

In the December 2007 NPRM, the agency proposed to reduce the required light intensity from 54 lm/m^2 (5 lm/ft^2) to 22 lm/m^2 (2 lm/ft^2). This reduction would bring the FMVSS No. 404 requirement into accord with ADA and FTA light intensity requirements.

In response to comments received by the agency regarding the lack of a test procedure to demonstrate compliance with the lighting requirement, NHTSA proposed amendments to S4.1.5 to set forth how platform illumination is to be measured. Specifically, the agency proposed the following procedures for platform illumination measurement:

- Illumination measurements would be recorded with the vehicle engine shut off.
- The vehicle and lift would be in an environment in which there is no ambient light.
- The sensor portion of the light meter would be within 50 mm (2 in) of the surface being measured.
- The measurement would be made with a light meter that has a range comparable to a minimum of 0 to 100 Lux, in increments comparable to 1 Lux or less, an accuracy of $\pm 5 \%$ of the actual reading and a sampling rate of at least 2 Hz.

Vehicle Battery Condition

Both Blue Bird and the NTEA observed that, because the proposed test would be conducted with the vehicle's engine shut off, the light illumination level would be affected by the

vehicle battery condition. The NTEA asked if NHTSA agreed that the test should be conducted with the vehicle's battery fully charged with a voltage of approximately 12 volts DC. Blue Bird suggested adding a paragraph to FMVSS No. 404 that would specify the battery condition at the time of testing. Blue Bird's suggested regulatory language would require that the battery be in a fully charged condition as defined by the battery manufacturer or, if such information cannot be obtained, industry-accepted third party sources be consulted, and would include measurements of the voltage, temperature, and specific gravity of the battery.

Agency's Response: We agree that the state of charge of a vehicle battery could affect illumination testing under our proposed test procedure. We proposed that the test be conducted when the engine is not running, which we believe is appropriate because lifts often must be operated with the engine turned off. The proposed test procedure simulates a more rigorous condition than if the engine were running.

We have considered specifying a minimum voltage for the vehicle battery for the platform illumination test. However, FMVSS No. 404 does not directly concern the operation of the vehicle's electrical system. Furthermore, the specification of a minimum battery voltage could be design-restrictive and would neglect differences between vehicles. For example, some lift-equipped vehicles could have an auxiliary battery, which may or may not provide extra power for lift lighting. In such a case, it could be unclear which battery voltage would be applicable to the FMVSS No. 404 test. Furthermore, we do not believe regulation of the specific gravity of a battery is warranted because compliance tests are conducted on new vehicles. Consequently, the batteries of vehicles that are tested would be relatively new and unaffected by dilution, sulfation, or other factors that could degrade the electrolyte in older batteries.

We believe that a performance-based approach for the illumination test will be simpler and less design-restrictive. Accordingly, we are altering the proposed test procedure to require that the lift-equipped vehicle must be operated prior to testing. Specifically, we are requiring that the engine be run for a minimum of 20 minutes by idling or driving the test vehicle with the vehicle's HVAC system turned off. Thereafter, the engine would be turned off and the test conducted. We believe 20 minutes is an appropriate amount of time to charge the battery and, if necessary, to warm it to conduct a consistent test. We believe that this performance-based test, rather than the minimum battery voltage proposed by the commenters, ensures sufficient battery voltage in a way that closely reflects real-world use of a platform lift system mounted on a vehicle.

Illumination Levels

The NTEA's comment supported adopting the ADA requirements for platform illumination levels. However, the NTEA noted that, to fully comply with ADA requirements, vehicle manufacturers have added more lighting in the vehicle doorway to achieve the lighting required on the ground beyond the deployed lift. The NTEA states that this additional lighting could be problematic because the intensity and positioning of lamps have the potential to obscure a lift operator's vision and could create a burn hazard.

Agency's Response: We have not made any change to our proposal based on this comment. We have no authority to alter the ADA requirement for lighting the ground beyond a deployed platform lift. The December 2007 NPRM concerned only illumination of the platform itself, and lighting the ground beyond a platform lift is beyond the scope of what was proposed in the December 2007 NPRM. The NTEA's comment acknowledges that this is not an issue specific to NHTSA.

Measurement of Illumination

Blue Bird requested that the light meter sample rate not be specified in the platform illumination test procedure and that the sensor measurement range not be specified. With respect to light meter sample rate, Blue Bird stated that specifying a light meter sample rate could be interpreted to prohibit the use of analog light meters. Blue Bird also requested that the measurement range for the light meter not be specified because it is not unusual for parts of a platform lift surface to be illuminated in excess of 100 Lux, and a technician conducting measurements would be able to judge an appropriate measurement range.

Agency's Response: Regarding the light meter measurement range, we note that the 0 to 100 Lux measurement range set forth in the proposal is a minimum range. Thus, any meter with a full-scale range equal to or greater than that is acceptable. In cases with the illumination level exceeds 100 Lux, there is no limitation on using a device with a greater range (or using a higher scale setting on a device with selectable ranges). We also note that the capability of taking illumination readings above 100 Lux is superfluous because compliance with S4.1.5 is established far below 100 Lux.

Nevertheless, we have reevaluated those specifications and believe that they do not need to be included in the regulatory text. Accordingly, we are deleting those specifications from the proposed S4.1.5 test procedure, and manufacturers will be able to certify their platform lighting system using any analog or digital light meter. However, we give notice that, for NHTSA's compliance testing, we intend to use a light meter that meets the specifications set forth in the December 2007 NPRM, and we will be amending the FMVSS No. 404 Test Procedure, NHTSA TP-404, accordingly.

E. Preemption

In the view of AAJ, NHTSA's discussion in the December 2007 NPRM of the 2000 Supreme Court case, Geier v. American Honda Motor Co., 529 U.S. 861, and the agency's assessment of the possibility of preemption represented a "sudden decision to claim [implied] preemption" of State tort law.

Agency's Response: The discussion in that notice was similar to the discussions in other agency notices of that period. As this agency has previously explained, AAJ generally misinterpreted those discussions.¹⁰

IV. Technical Corrections

The amendments in Section IV were not proposed in the December 2007 NPRM. The agency has determined that good cause exists for the following technical corrections to be issued without publishing advance notice of the amendments or providing opportunity for public comment. The amendments discussed in Section IV correct obvious errors in regulatory text created by NHTSA's FMVSS Nos. 403 and 404 rulemakings. In one case, the technical correction reverses an earlier inadvertent change to regulatory text that was made without any discussion in the preamble.

A. Definition of Motor Home

In the December 2002 final rule establishing FMVSS Nos. 403 and 404, NHTSA added a definition for "motor home" to 49 CFR 571.3 that applies to all FMVSSs. In that final rule, the agency categorized a motor home as a "multi-purpose vehicle." However, NHTSA intended to categorize a "motor home" as a "multipurpose passenger vehicle." The term "multipurpose passenger vehicle" is defined in section 571.3, whereas the term "multi-purpose vehicle" is not defined. We are correcting this obvious error in this final rule.

B. Change to Application Section

¹⁰ 75 FR 33515, 33524-5; June 14, 2010.

In the October 2004 final rule responding to petitions for reconsideration, NHTSA amended the “Application” section (S3) of FMVSS Nos. 403 and 404. The agency made changes to the “Application” section to make clear that FMVSS Nos. 403 and 404 do not apply to systems involving specialized medical transport. In the December 2004 interim final rule, NHTSA again amended the “Application” section to delay the compliance dates for FMVSS Nos. 403 and 404. In the December 2004 interim final rule, the agency inadvertently deleted the changes made in the October 2004 final rule. The changes to the “Application” sections in the December 2004 interim final rule were intended solely to delay the effective date. The agency did not discuss changing or intend to change the types of platform lifts or vehicles to which FMVSS Nos. 403 and 404 apply. This final rule corrects this inadvertent change in the applicability of FMVSS Nos. 403 and 404.

C. Height Range Measurements in Edge Guard Test

We are changing the phrase “less than” to “more than” in two places in the edge guard test in S7.7.4 of FMVSS No. 403. The procedures set forth in paragraphs S7.7.4.3 and S7.7.4.6 specify a range of heights at which the edge guard test requirements are applicable. The requirements are supposed to apply in a height range extending from 90 mm (3.5 in) above ground to 38 mm (1.5 in) below vehicle floor level. However, the regulatory text sets forth the upper limit as “less than” 38 mm (1.5 in) below floor level. In order for the test to be correct, the upper limit should be specified as “more than” 38 mm (1.5 in) below floor level – meaning that the platform must be lower in height than 38 mm (1.5 in) below the vehicle floor. Otherwise, the test would only be conducted in two places, as there is unlikely to be any height that is both less than 38 mm (1.5 in) below floor level and 90 mm (3.5 in) above the ground. If that was NHTSA’s intent, there would have been no need for the test to be conducted at a range of

heights. In order to conduct this test as NHTSA intended, it is necessary that the platform be no higher than 38 mm (1.5 in) below the vehicle floor to ensure deployment of an inner barrier or roll-stop. This final rule amends paragraphs S7.7.4.3 and S7.7.4.6 of FMVSS No. 403 to correct this obvious error.

D. Test Conditions for Inner Roll Stop Test

There was an error in the proposed regulatory text of paragraph S7 in the December 2007 NPRM. Paragraph S7 sets forth which of the test procedures must be performed on a platform lift installed on a vehicle and which may be performed with the lift mounted on a fixture or test jig. The proposed language of paragraph S7 regrouped the handrail test procedure of S7.12 with those tests that must be performed on a vehicle/lift combination. In the proposed regulatory text, we erroneously included the inner roll stop test procedure of S7.8 in both groups of tests. The inner roll stop test procedure must be performed on a lift/vehicle combination as the current regulatory text states. We have corrected this inadvertent error in this final rule.

E. Clarification of Wheelchair Retention and Inner Roll Stop Requirements

In the December 2007 NPRM, the agency proposed amending S6.4.7 to delete the requirement that the wheelchair test device remain upright with all its wheels in contact with the platform surface following impact. Instead, NHTSA proposed to revise S6.4.7 to provide that a wheelchair retention device passes the impact test if, after impact, the wheelchair test device remains supported by the platform surface with none of the axles of its wheels extending beyond the plane perpendicular to the platform reference plane (Figure 1) which passes through the edge of the platform surface that is transverse when entering or exiting the platform from the ground level loading position. We have modified the language to clarify that such a plane would be

tangent to the edge of the platform surface. We have made a similar change to the proposed amendment to S6.4.8.3 using the same language in relation to the inner roll stop requirement.

V. November 3, 2005 Interpretation

On November 3, 2005, we issued an interpretation letter related to S7.4 of FMVSS No. 403, addressed to Maxon. The November 2005 interpretation clarified specific procedures that are performed as part of the threshold warning signal test. Although the agency has decided against revising the language of S7.4, we include a discussion of the matter in this document to ensure wide-spread dissemination of the interpretation.

In asking about the threshold warning requirements, the incoming letter suggested that there was an apparent inconsistency between the requirement and the associated test procedure.

The agency responded, explaining, as follows, that the specified test procedure for the threshold warning system is consistent with that requirement:

As part of FMVSS No. 403, the agency established a threshold warning signal requirement for platform lifts in part to minimize the risk of a lift user backing off a vehicle before a lift is properly positioned. S6.1 of FMVSS No. 403 requires an appropriate threshold warning signal to be activated when any portion of a passenger's body or mobility aid occupies the platform threshold area defined in S4 of that standard, and the platform is more than 25 mm (1 inch) below the vehicle floor reference plane. A platform lift must meet this requirement when tested in accordance with S7.4 of the standard.

In your letter you stated that it is possible to design a threshold warning system that "will pass a test that is performed as described in S7.4 and not completely fulfill the requirements of S6.1.3". You described a threshold warning system designed with an optical sensor at the interior boundary of the platform threshold area. You stated that such a system would activate the warning signal only when a passenger is crossing the boundary of the threshold at the same time as the platform is lower than 25 mm from the vehicle floor. You further stated that such a system would not activate a signal if a passenger were completely within the threshold area when the platform reached the specified distance from the vehicle floor. Your letter indicated that you believe that such a system would "pass" the test procedure, but not comply fully with the requirement.

A system as you described would not comply with the requirements of S6.1.3 when tested as specified in S7.4. As stated above, S6.1 requires the appropriate warning signal to activate when tested in accordance with S7.4. S7.4.2 specifies that, with the platform lift at the vehicle floor loading position:

[P]lace one front wheel of the unloaded wheelchair test device [specified in S7.1.2] on any portion of the threshold area defined in S4. Move the platform down until the alarm is actuated. Remove the test wheelchair wheel from the threshold area to deactivate the alarm. Measure the vertical distance between the platform and the threshold area and determine whether that distance is greater than 25 mm (1 in).

Thus, S7.4.2 specifies placing the front wheel of the test device on **any** portion of the threshold area. As explained in 49 CFR § 571.4, the use of the term "any" in connection with a range of values or set of items means generally, "the totality of the items or values, any one of which may be selected by the [agency] for testing". Accordingly, the procedure specified in S7.4.2 includes placement of the front wheel that could result in the entire test device being within the threshold area prior to the platform being lowered. This also includes placement that results in a portion of the test device being on the platform.

Given the discussion above, a system such as you described would not comply when tested under S7.4.2. As such, there is no discrepancy between the requirement of S6.1.3 and the test procedure specified in S7.4.

VI. Compliance Date

The amendments made by this final rule are mandatory for purposes of compliance 180 days after publication of this final rule. Optional compliance is permitted immediately upon publication of the final rule. We believe these dates are appropriate given that the amendments are for the purpose of clarifying the requirements of the standard and providing further flexibility in compliance.

VII. Rulemaking Analyses and Notices

Executive Order 12866, Executive Order 13563, and DOT Regulatory Policies and Procedures

NHTSA has considered the impacts of this rulemaking action under Executive Order 12866, Executive Order 13563, and the Department of Transportation's regulatory policies and

procedures. This action was not reviewed by the Office of Management and Budget under E.O. 12866. The agency has considered the impact of this action under the Department of Transportation's regulatory policies and procedures (44 FR 11034; February 26, 1979), and has determined that it is not "significant" under them. This rulemaking document was not reviewed under E.O. 12866.

This document makes amendments to FMVSS Nos. 403 and 404 to clarify the requirements of the standard and to provide further flexibility in compliance. The impacts of the amendments are so minimal that a full regulatory evaluation is not required. Readers who are interested in the overall costs and benefits of the platform lift requirements are referred to the agency's Final Economic Assessment for the December 2002 final rule (Docket No. NHTSA-2002-13917-3). The amendments made by this document will not change the costs and benefits in a quantifiable manner.

Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act (5 U.S.C. 601 et seq., as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small governmental jurisdictions). The Small Business Administration's regulations at 13 CFR Part 121 define a small business, in part, as a business entity "which operates primarily within the United States." (13 CFR 121.105(a)). No regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide

a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities.

NHTSA has considered the effects of this final rule under the Regulatory Flexibility Act. I certify that this final rule will not have a significant economic impact on a substantial number of small entities. The final rule does not impose new requirements but instead amends FMVSS Nos. 403 and 404 to clarify the requirements of the standards and to provide further flexibility in compliance.

Executive Order 13132 (Federalism)

NHTSA has examined today's rule pursuant to Executive Order 13132 (64 FR 43255, August 10, 1999) and concluded that no additional consultation with States, local governments or their representatives is mandated beyond the rulemaking process. The agency has concluded that the rulemaking does not have sufficient federalism implications to warrant consultation with State and local officials or the preparation of a federalism summary impact statement. The rule does not have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.”

NHTSA rules can preempt in two ways. First, the National Traffic and Motor Vehicle Safety Act contains an express preemption provision:

When a motor vehicle safety standard is in effect under this chapter, a State or a political subdivision of a State may prescribe or continue in effect a standard applicable to the same aspect of performance of a motor vehicle or motor vehicle equipment only if the standard is identical to the standard prescribed under this chapter. 49 U.S.C. 30103(b)(1).

It is this statutory command by Congress that preempts any non-identical State legislative and administrative law addressing the same aspect of performance.

The express preemption provision described above is subject to a savings clause under which “[c]ompliance with a motor vehicle safety standard prescribed under this chapter does not exempt a person from liability at common law.” 49 U.S.C. 30103(e). Pursuant to this provision, State common law tort causes of action against motor vehicle manufacturers that might otherwise be preempted by the express preemption provision are generally preserved.

However, the Supreme Court has recognized the possibility, in some instances, of implied preemption of such State common law tort causes of action by virtue of NHTSA's rules, even if not expressly preempted. This second way that NHTSA rules can preempt is dependent upon there being an actual conflict between an FMVSS and the higher standard that would effectively be imposed on motor vehicle manufacturers if someone obtained a State common law tort judgment against the manufacturer, notwithstanding the manufacturer's compliance with the NHTSA standard. Because most NHTSA standards established by an FMVSS are minimum standards, a State common law tort cause of action that seeks to impose a higher standard on motor vehicle manufacturers will generally not be preempted. However, if and when such a conflict does exist—for example, when the standard at issue is both a minimum and a maximum standard—the State common law tort cause of action is impliedly preempted. See *Geier v. American Honda Motor Co.*, 529 U.S. 861 (2000).

Pursuant to Executive Order 13132 and 12988, NHTSA has considered whether this rule could or should preempt State common law causes of action. The agency's ability to announce its conclusion regarding the preemptive effect of one of its rules reduces the likelihood that preemption will be an issue in any subsequent tort litigation. To this end, the agency has examined the nature (e.g., the language and structure of the regulatory text) and objectives of today's rule and finds that this rule, like many NHTSA rules, prescribes only a minimum safety

standard. As such, NHTSA does not intend that this rule preempt state tort law that would effectively impose a higher standard on motor vehicle manufacturers than that established by today's rule. Establishment of a higher standard by means of State tort law would not conflict with the minimum standard adopted here. Without any conflict, there could not be any implied preemption of a State common law tort cause of action.

Executive Order 12988 (Civil Justice Reform)

With respect to the review of the promulgation of a new regulation, section 3(b) of Executive Order 12988, "Civil Justice Reform" (61 FR 4729, February 7, 1996) requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) Clearly specifies the preemptive effect; (2) clearly specifies the effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct, while promoting simplification and burden reduction; (4) clearly specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. This document is consistent with that requirement.

Pursuant to this Order, NHTSA notes as follows. The issue of preemption is discussed above. NHTSA notes further that there is no requirement that individuals submit a petition for reconsideration or pursue other administrative proceeding before they may file suit in court.

Protection of Children from Environmental Health and Safety Risks

Executive Order 13045, "Protection of Children from Environmental Health and Safety Risks" (62 FR 19855, April 23, 1997), applies to any rule that: (1) is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental, health, or safety risk that the agency has reason to believe may have a

disproportionate effect on children. If the regulatory action meets both criteria, the agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the agency.

Although this final rule is part of a rulemaking expected to have a positive safety impact on children, it is not an economically significant regulatory action under Executive Order 12866. Consequently, no further analysis is required under Executive Order 13045.

Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (PRA), a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. There is no information collection requirement associated with this final rule.

National Technology Transfer and Advancement Act

Under the National Technology Transfer and Advancement Act of 1995 (NTTAA) (Public Law 104-113), “all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments.”

As discussed in the preamble to the December 2002 final rule, the equipment standard was drafted to include or exceed all existing government (FTA, ADA) and voluntary industry (e.g., SAE) standards.¹¹ Readers who are interested in the source of the requirements in FMVSS No. 403 are referred to that document. The agency included a table showing the source of each requirement in FMVSS No. 403.

¹¹ 67 FR 79416, 79438; December 27, 2002.

This document is not imposing new requirements but is instead amending FMVSS Nos. 403 and 404 to clarify the requirements of the standards and to provide further flexibility in compliance. As discussed in the December 2007 NPRM, the proposal to amend S4.1.5 of FMVSS No. 404 to reduce the required platform illumination levels to those specified by the ADA and FTA is consistent with the NTTAA.¹²

Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 (UMRA) requires federal agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of more than \$100 million annually (adjusted for inflation with base year of 1995). Before promulgating a NHTSA rule for which a written statement is needed, section 205 of the UMRA generally requires the agency to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows the agency to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the agency publishes with the final rule an explanation of why that alternative was not adopted.

This final rule will not result in any expenditure by State, local, or tribal governments or the private sector. Thus, this final rule is not subject to the requirements of sections 202 and 205 of the UMRA.

National Environmental Policy Act

¹² 72 FR 72326, 72333; December 20, 2007.

NHTSA has analyzed this rulemaking action for the purposes of the National Environmental Policy Act. The agency has determined that implementation of this action will not have any significant impact on the quality of the human environment.

Regulatory Identifier Number (RIN)

The Department of Transportation assigns a regulation identifier number (RIN) to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. You may use the RIN contained in the heading at the beginning of this document to find this action in the Unified Agenda.

Privacy Act

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (Volume 65, Number 70; Pages 19477-78) or you may visit <http://www.regulations.gov>.

List of Subjects in 49 CFR Part 571

Motor vehicle safety, Reporting and recordkeeping requirements, Tires.

In consideration of the foregoing, NHTSA hereby amends 49 CFR part 571 as follows:

PART 571 – FEDERAL MOTOR VEHICLE SAFETY STANDARDS

1. The authority citation for Part 571 of Title 49 continues to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117, and 30166; delegation of authority at 49 CFR 1.50.

2. Section 571.3 is amended by revising the definition of “motor home” in paragraph (b) to read as follows:

§ 571.3 Definitions.

* * * *

Motor home means a multipurpose passenger vehicle with motive power that is designed to provide temporary residential accommodations, as evidenced by the presence of at least four of the following facilities: cooking; refrigeration or ice box; self-contained toilet; heating and/or air conditioning; a potable water supply system including a faucet and a sink; and a separate 110-125 volt electrical power supply and/or propane.

* * * *

3. Section 571.403 is amended by revising paragraphs S3, S6.1.4, S6.1.6, S6.4.7.1, S6.4.8.3(a), S6.7.4, S6.7.6.2, S6.10.2.4, S6.10.2.5, S6.10.2.6, S6.10.2.7, S7, S7.4.2, S7.5, S7.5.1, S7.6, S7.6.1, S7.6.2, S7.6.3, S7.7.2.4, S7.7.2.5, S7.7.4.3, S7.7.4.6, S7.8.3, and Figure 2; by removing paragraphs S7.5.2 and S7.5.3; and by adding new paragraphs S7.5.1.1 and S7.5.1.2 to read as follows:

§571.403 Standard No. 403; Platform lift systems for motor vehicles.

* * * *

S3 Application. This standard applies to platform lifts manufactured on and after April 1, 2005, that are designed to carry standing passengers, who may be aided by canes or walkers, as well as persons seated in wheelchairs, scooters, and other mobility aids, into and out of motor vehicles.

* * * *

S6.1.4 The visual warning required by S6.1.2 and S6.1.3 must be a flashing red beacon as defined in SAE Recommended Practice J578 (1995) (incorporated by reference, see § 571.5), must have a minimum intensity of 20 candela, a frequency from 1 to 2 Hz, and must be located within the interior of the vehicle such that it is visible from a point 914 mm (3 ft) above the center of the threshold area (see Figure 2) wherever the lift is installed and with any configuration of the vehicle interior.

* * * * *

S6.1.6 The intensity of the audible warning and visibility of the visual warning required by S6.1.2 and S6.1.3 is measured/observed at a location 914 mm (3 ft) above the center of the platform threshold area. (See Figure 2).

* * * * *

S6.4.7.1 Impact I. Except for platform lifts designed so that platform loading takes place wholly over the vehicle floor, the lift must have a means of retaining the test device specified in S7.1.2. After impact, the test device must remain supported by the platform surface with none of the axles of its wheels extending beyond a plane that is perpendicular to the platform reference plane (Figure 1) and that is tangent to the edge of the platform that is traversed when entering or exiting the platform from the ground level loading position throughout its range of passenger operation, except as provided in S6.4.7.4. The lift is tested in accordance with S7.7 to determine compliance with this section.

* * * * *

S6.4.8.3 * * *

(a) The front wheels of the test device specified in S7.1.2 from extending beyond a plane that is perpendicular to the platform reference plane (Figure 1) and that is tangent to the edge of the platform where the roll stop is located when the lift is at ground level loading position; and

* * * * *

S6.7.4 Except for the POWER function described in S6.7.2.1, the control system specified in S6.7.2 must prevent the simultaneous performance of more than one function. If an initial function is actuated, then one or more other functions are actuated while the initial function remains actuated, the platform must either continue in the direction dictated by the initial function or stop. Verification of this requirement is made throughout the lift operations specified in S7.9.3 through S7.9.8.

* * * * *

S6.7.6.2 Public use lifts. Public-use lift controls located within the portion of the passenger compartment specified in S5.3.4(a) of Standard No. 101 (§571.101) must have characters that are illuminated in accordance with S5.3 of Standard No. 101 when the vehicle's headlights are illuminated. Public-use lift controls located outside the portion of the passenger compartment specified in S5.3.4(a) of Standard No. 101 (§571.101) must have means for illuminating the characters to make them visible under daylight and nighttime conditions.

* * * * *

S6.10.2.4 Movement of the platform up or down, throughout the range of passenger operation, unless the inner roll stop required to comply with S6.4.8 is deployed. When the platform reaches a level where the inner roll stop is designed to fully deploy, the platform must stop unless the inner roll stop has fully deployed. Verification with this requirement is made by performing the test procedure specified in S7.6.1.

S6.10.2.5 Movement of the platform up or down, throughout the range of passenger operation, when the highest point of the platform surface at the outer most platform edge is above a horizontal plane 75 mm (3 in) above the ground level loading position, unless the wheelchair retention device required to comply with S6.4.7 is deployed throughout the range of passenger operations. Verification of compliance is made using the test procedure specified in S7.5.1.

S6.10.2.6 In the case of a platform lift that is equipped with an outer barrier, vertical deployment of the outer barrier when it is occupied by portions of the passenger's body or mobility aid throughout the lift operation. When the platform stops, the vertical change in distance of the horizontal plane (passing through the point of contact between the wheelchair test device wheel(s) and the upper surface of the outer barrier) must not be greater than 13 mm (0.5 in). Verification of compliance with this requirement is made using the test procedure specified in S7.5.1.

S6.10.2.7 Vertical deployment of the inner roll stop required to comply with S6.4.8 when it is occupied by portions of a passenger's body or mobility aid throughout the lift operations. When the platform stops, the vertical change in distance of the horizontal plane (passing through the point of contact between the wheelchair test device wheel(s) and the upper surface of the inner roll stop or platform edge) must not be greater than 13 mm (0.5 in). Verification of compliance with this requirement is made using the test procedure specified in S7.6.1.

* * * * *

S7 Test conditions and procedures. Each platform lift must be capable of meeting all of the tests specified in this standard, both separately, and in the sequence specified in this section.

The tests specified in S7.4, S7.7.4 and S7.8 through S7.12 are performed on a single lift and vehicle combination. The tests specified in S7.2, S7.3, S7.5, S7.6, S7.7.1, S7.13, and S7.14 may be performed with the lift installed on a test jig rather than on a vehicle. Tests of requirements in S6.1 through S6.11 may be performed on a single lift and vehicle combination, except for the requirements of S6.5.3. Attachment hardware may be replaced if damaged by removal and reinstallation of the lift between a test jig and vehicle.

* * * * *

S7.4.2 During the threshold warning test, the wheelchair test device may be occupied by a human representative of a 5th percentile female meeting the requirements of FMVSS 208, S29.1(f) and S29.2. If present, the human subject is seated in the wheelchair test device with his or her feet supported by the wheelchair foot rests which are adjusted properly for length and in the down position (not elevated). The manufacturer shall select the option by the time it certifies the lift and may not thereafter select a different test option for the lift. Maneuver the lift platform to the vehicle floor level loading position. Using the wheelchair test device specified in S7.1.2, place one front wheel of the wheelchair test device on any portion of the threshold area defined in S4. Move the platform down until the alarm is actuated. Remove the test wheelchair wheel from the threshold area to deactivate the alarm. Measure the vertical distance between the platform and the threshold area and determine whether that distance is greater than 25 mm (1 in).

* * * * *

S7.5 Outer barrier non-deployment interlock and occupied outer barrier interlock test.

S7.5.1 Determine compliance with both S6.10.2.5 and S6.10.2.6 by using the following single test procedure.

S7.5.1.1 Place the test jig or vehicle on which the lift is installed on a flat, level, horizontal surface. Maneuver the platform to the ground level loading position. Using the lift control, move the lift upward until the point where the outer barrier fully deploys. Stop the platform at that point and measure the vertical distance between the highest point on the platform surface at the outer most edge and the ground to determine whether the distance is greater than 75 mm (3 in). Reposition the platform in the ground level loading position. Locate the wheelchair test device specified in S7.1.2 on the platform. If other wheelchair retention devices (e.g., a belt retention device) prevent the front wheel of the wheelchair test device from accessing the outer barrier when on the platform, the wheelchair test device may be placed on the ground facing the entrance to the lift, with other retention devices configured so that they do not prevent lift operation (e.g., with any belt retention device fastened or buckled).

S7.5.1.2 Place one front wheel of the wheelchair test device on any portion of the outer barrier. If the platform is too small to maneuver one front wheel on the outer barrier, two front wheels may be placed on the outer barrier. Note the distance between a horizontal plane (passing through the point of contact between the wheelchair test device wheel(s) and the upper surface of the outer barrier) and the ground. Using the lift control, move the platform up until it stops. Measure the vertical distance between the highest point of the platform surface at the outer most edge and the ground to determine compliance with S6.10.2.5. Measure the vertical change in distance of the horizontal plane (passing through the point of contact between the wheelchair test device wheel(s) and the upper surface of the outer barrier) to determine compliance with S6.10.2.6.

S7.6 Inner roll stop non-deployment interlock and occupied inner roll stop interlock test.

S7.6.1 Determine compliance with both S6.10.2.4 and S6.10.2.7 by using the single test procedure in S7.6.2 and S7.6.3.

S7.6.2 Maneuver the platform to the vehicle floor level loading position, and position the wheelchair test device specified in S7.1.2 on the platform with the front of the wheelchair test device facing the vehicle. Using the lift control, move the platform down until the inner roll stop fully deploys. Stop the lift and note that location.

S7.6.3 Reposition the platform at the vehicle floor level loading position. Place one front wheel of the wheelchair test device on the inner roll stop. If the platform is too small to maneuver one front wheel on the inner roll stop, two front wheels may be placed on the inner roll stop. Note the vertical distance between a horizontal plane (passing through the point of contact between the wheelchair test device wheel(s) and the upper surface of the inner roll stop) and the ground. Using the lift control, move the platform down until it stops. Compare the location of the platform relative to the location noted in S7.6.2 to determine compliance with S6.10.2.4. Measure the vertical change in distance of the horizontal plane (passing through the point of contact between the wheelchair test device wheel(s) and the upper surface of the inner roll stop) to determine compliance with S6.10.2.7.

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S7.7.2.4 An optional 50 kg (110 pounds) of weight may be centered, evenly distributed, and secured in the seat of the wheelchair test device to assist in stabilizing the wheelchair test device during testing. The manufacturer shall select the option by the time it certifies the lift and may not thereafter select a different test option for the lift. Accelerate the test device onto the platform under its own power such that the test device impacts the wheelchair retention device at each speed and direction combination specified in S7.7.2.5. Terminate power to the

wheelchair test device by means of the wheelchair controller after completion of the initial impact of any portion of the wheelchair test device with the wheelchair retention device. Note the position of the wheelchair test device following each impact to determine compliance with S6.4.7. If necessary, after each impact, adjust or replace the footrests to restore them to their original condition.

S7.7.2.5 The test device is operated at the following speeds, in the following directions –

(a) At a speed of not less than 2.0 m/s (4.4 mph) and not more than 2.1 m/s (4.7 mph) in the forward direction.

(b) At a speed of not less than 1.75 m/s (3.9 mph) and not more than 1.85 m/s (4.1 mph) in the rearward direction.

* * * * *

S7.7.4.3 Adjust the control of the test device to a setting that provides maximum acceleration and steer the test device from side-to-side and corner-to-corner of the lift platform, attempting to steer the test device off the platform. After each attempt, when the wheelchair test device stalls due to contact with a barrier, release the control to Neutral and realign the test device to the starting position. Repeat this sequence at any level that is more than 90 mm \pm 10 mm (3.5 in \pm 0.4 in) above the ground level loading position and more than 38 mm \pm 10 mm (1.5 in \pm 0.4 in) below the vehicle floor level loading position. Repeat this sequence at 38 mm \pm 10 mm (1.5 in \pm 0.4 in) below the vehicle floor level loading position.

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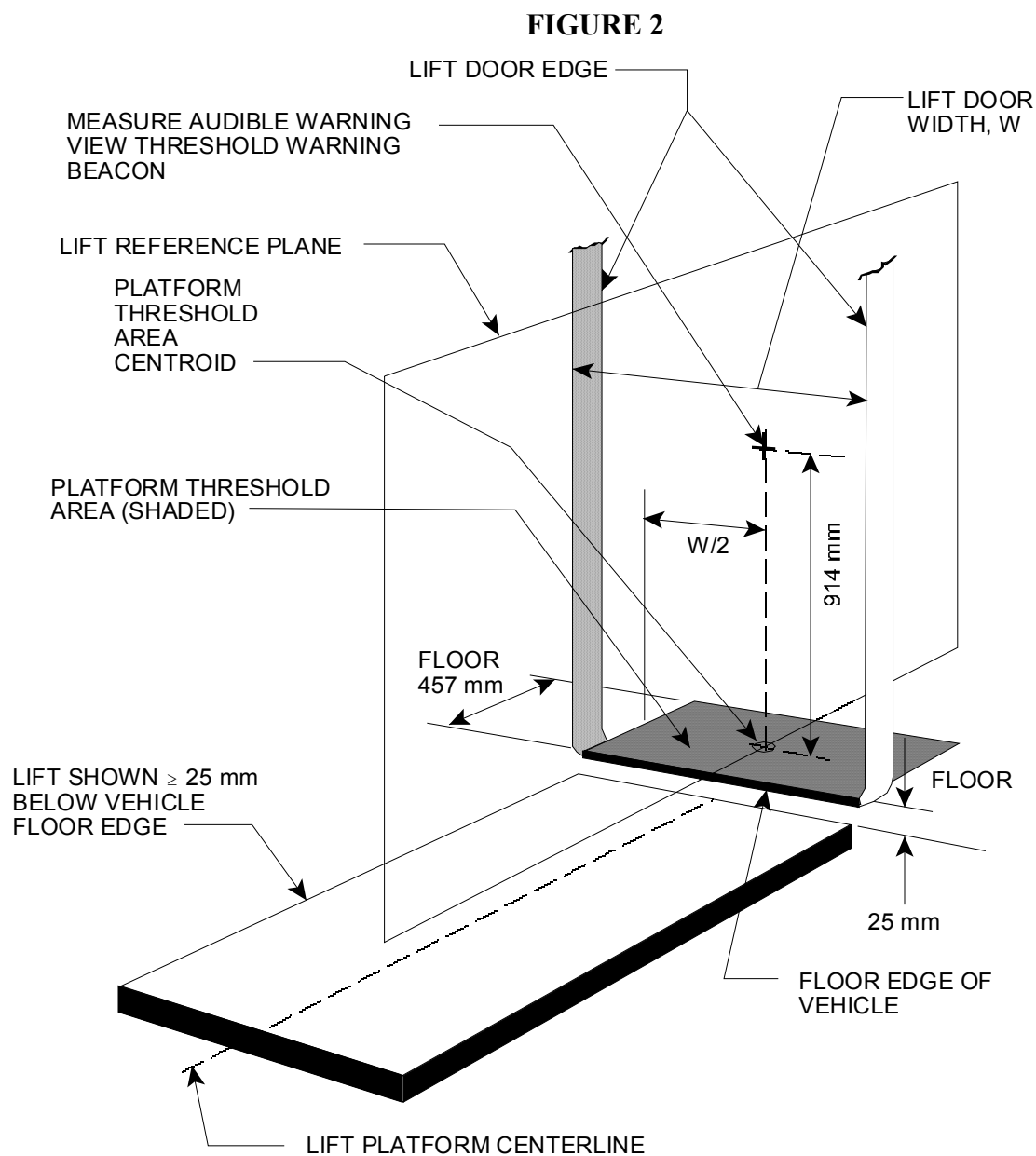
S7.7.4.6 Adjust the control of the test device to a setting that provides maximum acceleration and steer the test device from side-to-side and corner-to-corner of the lift platform, attempting to steer the test device off the platform. After each attempt, when the wheelchair test

device stalls due to contact with a barrier, release the control to Neutral and realign the test device to the starting position. Repeat this sequence at any level that is more than 90 mm \pm 10 mm (3.5 in \pm 0.4 in) above the ground level loading position and more than 38 mm \pm 10 mm (1.5 in \pm 0.4 in) below the vehicle floor loading position. Repeat this sequence at 38 mm \pm 10 mm (1.5 in \pm 0.4 in) below the vehicle floor level loading position.

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S7.8.3 An optional 50 kg (110 pounds) of weight may be centered, evenly distributed, and secured in the seat of the wheelchair test device to assist in stabilizing the wheelchair test device during testing. The manufacturer shall select the option by the time it certifies the lift and may not thereafter select a different test option for the lift. Accelerate the test device onto the platform such that it impacts the inner roll stop at a speed of not less than 1.5 m/s (3.4 mph) and not more than 1.6 m/s (3.6 mph). Terminate power to the wheelchair test device by means of the wheelchair controller after completion of the initial impact of any portion of the wheelchair test device with the inner roll stop. Determine compliance with S6.4.8.3(a).

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PLATFORM THRESHOLD AREA AUDIBLE
WARNING MEASUREMENT POINT

FIGURE 2

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4. Section 571.404 is amended by revising paragraphs S3 and S4.1.5 to read as follows:

§571.404 Standard No. 404; Platform lift installations in motor vehicles.

* * * *

S3 Application. This standard applies to motor vehicles manufactured on and after July 1, 2005, that are equipped with a platform lift designed to carry standing passengers who may be aided by canes or walkers, as well as persons seated in wheelchairs, scooters, and other mobility aids, into and out of the vehicle.

* * * *

S4.1.5 Platform Lighting on public use lifts. Public-use lifts must be provided with a light or set of lights that provide at least 22 lm/m² or 22 Lux (2 lm/ft² or 2 foot-candles) of illumination on all portions of the surface of the platform when the platform is at the vehicle floor level. Additionally, a light or set of lights must provide at least 11 lm/m² or 11 Lux (1 lm/ft² or 1 foot-candle) of illumination on all portions of the surface of the platform and all portions of the surface of the passenger-unloading ramp at ground level. In preparation for taking illumination measurements, operate the vehicle engine by idling or driving the test vehicle, with the vehicle's HVAC system turned off, for a minimum of 20 minutes, after which the engine is turned off. Illumination measurements are then recorded no later than 10 minutes after the time the engine is turned off, with the vehicle in a location where there is no apparent ambient light, and with the sensing element of the measuring device within 50 mm (2 inches) of the platform surface being measured.

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Administrator

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